



**CARBON OFFSET  
OPPORTUNITY PROGRAM**  
*A tool for collaborative project development*

## **The Value of Collaborative Tools in Advancing Carbon Sequestration Projects and Other Climate Initiatives**



# CARBON MARKET OVERVIEW

- Source: Emissions reduction programs
  - Voluntary and mandatory programs
  - Multinational, national, regional, state and/or local
  - Derivations – cap & trade / baseline & credit
- Focus: Finding the least-cost solution for emissions reduction goals
- Anticipated Outcomes: Emissions reduction achievements propelled by an efficient market



# CARBON MARKETS IN 2005

- **Existing Markets:**
  - European Union Emissions Trading Scheme
  - Existing trading mechanisms and established markets in the UK & Denmark
  - Chicago Climate Exchange
- **Future Drivers:**
  - Climate VISION metric achievement
  - Multi-national adoption of Kyoto Protocol (non-applicable in US)
  - Over half of the states have developed or are developing strategies to reduce GHG emissions, including northeastern regional initiative
  - GHG requirements of insurance and banking industries



# GHG MANAGEMENT ACTIVITIES

- Offset Projects
  - Terrestrial sequestration projects
  - Waste-to-energy opportunities
  - Future focus: Geologic sequestration projects
- Internal Reduction Projects
  - Fuel combustion processes
  - Fuel transportation processes
  - Fuel mixture options
- Trades
  - Verified emissions reductions
  - Emissions reductions
  - Tradable instruments



# TRANSACTION COSTS

- Definition of transaction costs:
  - Costs that arise from an exchange of goods and services
- Common examples of transaction costs:
  - Transportation Costs
  - Legal Fees
  - Search Costs



# CARBON MARKET TRANSACTION COSTS

- Negotiation
- Baseline Determination
- Validation
- Verification
- Monitoring
- Search Costs
- Learning



# Reducing Market Barriers

- CO-OP focuses are reducing two key barriers to entry:
  - (1) Search Costs
  - (2) Learning / Education
- Similar focuses for USEPA programs have yielded successes in landfill gas to energy project development (LMOP) and coalmine methane utilization (CMOP)



# CO-OP BACKGROUND

- Research indicated a need for additional GHG emissions management planning tools, especially with regard to carbon sequestration projects
- Developed in collaboration with a group of potential stakeholders
- Primary Goal – To assist industry, government, and non-governmental organizations in catalyzing collaborative GHG reduction and offset projects and activities, with a focus on carbon sequestration, in a way that emphasizes voluntary actions





# CO-OP OVERVIEW


- A web-based system that serves as a central informational resource to match potential investors with contemplated GHG reduction and offset projects
- Stimulates project development
- Provides an educational resource





CO-OP Project Portfolio - Microsoft Internet Explorer

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## Project Portfolio

ID #	Opportunity Name	Opportunity Category	Target GHGs	Start Year	End Year
1030	<a href="#">Carbon Sequestration</a>	Prj-Equity	N2O	2005	2015
1020	<a href="#">Cement Kiln CO2 Reduction</a>	Prj-ERU/Equity	CO2	1997	2010
1022	<a href="#">CR Reforestation Project</a>	Prj-ERU	CO2	1996	2021
1023	<a href="#">Estonia Heating Efficiency</a>	Prj-ERU	CO2	1998	2013
1021	<a href="#">Forest Investment Inc. Project</a>	Prj-Equity	CO2	1999	2050
1024	<a href="#">Missouri Fuel Switch to Gas</a>	Prj-ERU	CO2	2000	2027

1

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## Carbon Sequestration

### Prj - Equity - Step 1 of 3

Cancel Save&Next

Note: All required fields are in red.

Project Info	Project Details	Annual ERUs
<p><b>Opportunity Name:</b> Carbon Sequestration</p> <p><b>Opportunity Category:</b> <input checked="" type="checkbox"/> Prj - Equity <input type="checkbox"/> Prj - ERU</p> <p><b>Time Period:</b> 2005 to 2015</p> <p><b>Target GHGs:</b></p> <ul style="list-style-type: none"> <li>CO2 (Carbon Dioxide)</li> <li>CH4 (Methane)</li> <li>N2O (Nitrous Oxide)</li> <li>HFCs (Hydrofluorocarbons)</li> <li>PFCs (Perfluorocarbons)</li> <li>SF6 (Sulfur Hexafluoride)</li> </ul> <p><b>Compliance Goals:</b></p> <ul style="list-style-type: none"> <li>CCX (Chicago Climate Exchange)</li> <li>Climate Trust</li> <li>Climate VISION</li> <li>Internal Voluntary Commitment</li> <li>Other</li> </ul> <p>NOTE: ERUs are measured in metric tonnes of CO2e.</p> <p><b>Total ERUs:</b> to <b>Price(\$)/ERU:</b> to</p> <p><input checked="" type="radio"/> Not Verified <input type="radio"/> Internal Verification <input type="radio"/> Third-party Verification</p> <p><b>Country:</b> Any</p> <p><b>City:</b> <b>County:</b></p> <p><b>State:</b> Any <b>Zip Code:</b></p> <p><b>Sector:</b> Carbon Sequestration</p> <p><b>Type:</b> Afforestation</p> <p><b>Match Criteria:</b> CO-OP will use all of the criteria selected below in determining matches to your listings.</p> <p> <input type="checkbox"/> Target GHGs           <input type="checkbox"/> Verification           <input type="checkbox"/> Time Period           <input type="checkbox"/> Annual ERUs           <input type="checkbox"/> Sector/Type           <input type="checkbox"/> Compliance Goals           <input type="checkbox"/> Total ERUs           <input type="checkbox"/> Price/ERU         </p> <p><input type="checkbox"/> Receive email notification of new or updated matching opportunities</p> <p><a href="#">Terms of Use</a></p>		

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CO-OP Search Opportunities - Microsoft Internet Explorer

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## Search Opportunities

4 Results Found  
(Results appear at the bottom of the page)

Opportunity ID Number:

-OR-

Opportunity Category: ☐ Prj - Equity ☐ Prj - ERU ☐ Inv - Equity ☐ Inv - ERU

Minimum Duration (Yrs):

Start Date:  to  End Date:  to

Target GHGs: [Compliance Goals:](#)

CO2 (Carbon Dioxide)  
CH4 (Methane)  
N2O (Nitrous Oxide)  
HFCs (Hydrofluorocarbons)  
PFCs (Perfluorocarbons)  
SF6 (Sulfur Hexafluoride)

CCX (Chicago Climate Exchange)  
Climate Trust  
Climate VISION  
Internal Voluntary Commitment  
Other

NOTE: ERUs are measured in metric tonnes of CO2e.

Total ERUs:  to  Price(\$)/ERU:  to

☐ Annual ERU data required Requires Verification:  
Minimum Annual ERUs:  ☐ Internal ☐ Third-party

City:  County:

Country:  State:

Zip Code:

Sector:

Type:

ID #	Opportunity Name	Opportunity Category	Target GHGs	Start Year	End Year
<input type="checkbox"/> 1002	<a href="#">Load Control</a>	Prj-ERU/Equity	CO2,CH4	1992	2012
<input type="checkbox"/> 1007	<a href="#">Methane Capture Mine Project</a>	Prj-Equity	CO2,CH4	2000	2010
<input type="checkbox"/> 1001	<a href="#">Methane Emissions</a>	Prj-ERU	CH4	2002	2018
<input type="checkbox"/> 1004	<a href="#">Selling CH4 Reductions</a>	Prj-ERU	CH4	1990	2050

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# PROJECT STATUS

- Initial version completed
- National roll-out currently underway, focusing on education and outreach efforts
- Seeking private sponsors to support the program



# BENEFITS OF CO-OP

- **Market benefits of the CO-OP initiative:**
  - To advance the development of carbon sequestration projects and other climate change initiatives
  - Minimize market barriers and reduce search costs
- **Benefits to potential CO-OP users:**
  - To be at the forefront of a new, innovative national initiative that facilitates and promotes voluntary GHG reduction and offset projects
  - To position organizations as leaders in voluntary GHG emissions management activities
  - To foster a positive public perception on GHG issues
  - Reduction of search costs for projects and partners



# CONTACT INFORMATION

The logo for Augusta Systems, featuring the word "augustasystems" in white lowercase letters on a blue rectangular background. A small green horizontal line is positioned under the letter "u".

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